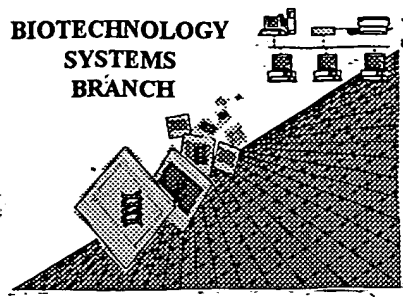


7510

1645

0
1600



RAW SEQUENCE LISTING
ERROR REPORT

TECH CENTER 1600/2900

JAN 22 2002

RECEIVED

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/623,568
 Source: 1600
 Date Processed by STIC: 1/15/2002

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 APR 08 2002
 TECH CENTER 1600/2900

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
 PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
 FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
 PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
 PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom, including:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
 U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
 Or
 U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

ERROR DETECTEDSUGGESTED CORRECTIONSERIAL NUMBER: 09/623,568

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFT

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 3rd amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading).
(ii) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped
- Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

TECH CENTER 160012900

APR 08 2002

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1600

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/623,568

DATE: 01/15/2002
 TIME: 13:19:49

Input Set : A:\ES.txt
 Output Set: N:\CRF3\01152002\I623568.raw

ppr 1-2
**Does Not Comply
 Corrected Diskette Needed**

3 <110> APPLICANT: Miller, Barbara
 4 Osmani, Stephen
 5 Clawson, Gary
 6 Zhang, Min-Ying
 7 Norris, James
 9 <120> TITLE OF INVENTION: Use of Human Homolog Of A Nuclear Migration Gene For
 Treatment And
 10 Diagnosis Of Cancer
 12 <130> FILE REFERENCE: PSU-0016
 14 <140> CURRENT APPLICATION NUMBER: 09/623,568
 15 <141> CURRENT FILING DATE: 2001-03-23
 17 <150> PRIOR APPLICATION NUMBER: 60/076,885
 18 <151> PRIOR FILING DATE: 1998-03-05
 20 <150> PRIOR APPLICATION NUMBER: PCT US99/04996
 21 <151> PRIOR FILING DATE: 1999-03-05
 23 <160> NUMBER OF SEQ ID NOS: 16
 25 <170> SOFTWARE: PatentIn version 3.1
 27 <210> SEQ ID NO: 1
 28 <211> LENGTH: 14
 29 <212> TYPE: PRT
 30 <213> ORGANISM: artificial Sequence
 32 <220> FEATURE:
 33 <223> OTHER INFORMATION: Peptide *insufficient explanation - give source of*
 35 <400> SEQUENCE: 1 *genetic material*
 37 Gly Cys Met Val Glu Lys Met Met Tyr Asp Gln Arg Gln Lys
 38 1 5 10
 41 <210> SEQ ID NO: 2
 42 <211> LENGTH: 15
 43 <212> TYPE: PRT
 44 <213> ORGANISM: artificial Sequence
 46 <220> FEATURE:
 47 <223> OTHER INFORMATION: Peptide *same error*
 49 <400> SEQUENCE: 2
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 52 1 5 10 15
 55 <210> SEQ ID NO: 3
 56 <211> LENGTH: 24
 57 <212> TYPE: DNA
 58 <213> ORGANISM: artificial Sequence
 60 <220> FEATURE:
 61 <223> OTHER INFORMATION: Oligonucleotide *same type of error*
 63 <400> SEQUENCE: 3
 64 ttctgttcgt ctgaagttgg cagc
 67 <210> SEQ ID NO: 4
 68 <211> LENGTH: 24
 69 <212> TYPE: DNA
 70 <213> ORGANISM: artificial Sequence
 72 <220> FEATURE:

24

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/623,568

DATE: 01/15/2002
 TIME: 13:19:49

Input Set : A:\ES.txt
 Output Set: N:\CRF3\01152002\I623568.raw

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73 <223> OTHER INFORMATION: Oligonucleotide
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79 <210> SEQ ID NO: 5
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81 <212> TYPE: DNA
82 <213> ORGANISM: artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Oligonucleotide
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88 aaggtaccaa gatggactcc ccaggggaagc aggatact 38
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93 <212> TYPE: DNA
94 <213> ORGANISM: artificial Sequence
96 <220> FEATURE:
97 <223> OTHER INFORMATION: Oligonucleotide
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103 <210> SEQ ID NO: 7
104 <211> LENGTH: 20
105 <212> TYPE: DNA
106 <213> ORGANISM: artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Oligonucleotide
111 <400> SEQUENCE: 7
112 gaaagtcgga ggttcgaaga 20
115 <210> SEQ ID NO: 8
116 <211> LENGTH: 20
117 <212> TYPE: DNA
118 <213> ORGANISM: artificial Sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: Oligonucleotide
123 <400> SEQUENCE: 8
124 accaactaag aacggccatg 20
127 <210> SEQ ID NO: 9
128 <211> LENGTH: 24
129 <212> TYPE: DNA
130 <213> ORGANISM: artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Oligonucleotide
135 <400> SEQUENCE: 9
136 agcaacatgc cgtcgaaccg ctcc 24
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140 <211> LENGTH: 24
141 <212> TYPE: DNA
142 <213> ORGANISM: artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: Oligonucleotide
  
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RAW SEQUENCE LISTING

DATE: 01/15/2002

PATENT APPLICATION: US/09/623,568

TIME: 13:19:49

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\I623568.raw

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147 <400> SEQUENCE: 10
148 ggagcgggttc gacggcatgt tgct                                24
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152 <211> LENGTH: 1281
153 <212> TYPE: DNA
154 <213> ORGANISM: Homo sapiens
156 <400> SEQUENCE: 11
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159 aggagcgggtt cgacggcatg ttgctggcca tggctcagca gcacgagggc ggcgtgcagg      120
161 agcttgtgaa caccttcttc agcttccttc gacgcaaac agactttttc attggaggag      180
163 aagaagggat ggcagagaag cttatcacac agactttcag ccaccacaat cagctggcac      240
165 agaagacccg gcgggagaag agagcccggc aggaggccga gcggcgggag aaggcgggagc      300
167 gggcggccag actggccaag gaagccaagt cagagacctc agggccccag atcaaggagc      360
169 taactgatga agaggcagag aggctgcagc tagagattga ccagaaaaag gatgcagaga      420
171 atcatgaggc ccagctcaag aacggcagcc ttgactcccc agggaagcag gatactgagg      480
173 aagatgagga ggaagatgag aaggacaaag gaaaactgaa gcccaaccta ggcaacgggg      540
175 cagacctgcc caattaccgc tggaccaga cctgtcggga gctggacctg gcggtcctt      600
177 tctgtgtgaa cttccggctg aaaggaagg acatggtggt ggacatccag cggcggcacc      660
179 tccgggtggg gctcaagggg cagccagcga tcattgatgg ggagctctac aatgaagtga      720
181 aggtggagga gagctcgtgg ctcattgagg acggcaaggt ggtgactgtg catctggaga      780
183 agatcaataa gatggagtgg tggagccgct tgggtgccag tgaccctgag atcaacacca      840
185 agaagattaa ccctgagaat tccaagctgt cagacctgga cagtgagact cgcagcatgg      900
187 tggaaaagat gatgtatgac cagcgacaga agtccatggg gctgccaaact tcagacgaac      960
189 agaagaaaca ggagattctg aagaagttca tggatcaaca tccggagatg gatttttoca     1020
191 aggctaaatt caactagccc ctgttttttc ctccctgaac tcttggggct gagctgcaac     1080
193 caccacaactt tctttccac tcttctctgg gacttgtggg cctcagggct tggggcaggc     1140
195 atgggactgg cccaggcaca caggtcccgg ggcacagga gaaaggctgg gtcttgggac     1200
197 cttgtctctc ccagttggcc tactgttaca cattaaacg atttgcccag ctcaaaaaaa     1260
199 aaaaaaaaaa aaaaaaaaaa a
202 <210> SEQ ID NO: 12
203 <211> LENGTH: 331
204 <212> TYPE: PRT
205 <213> ORGANISM: Homo sapiens
207 <400> SEQUENCE: 12
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210 1 5 10 15
213 Met Ala Gln Gln His Glu Gly Gly Val Gln Glu Leu Val Asn Thr Phe
214 20 25 30
217 Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu
218 35 40 45
221 Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Ser His His Asn Gln
222 50 55 60
225 Leu Ala Gln Lys Thr Arg Arg Glu Lys Arg Ala Arg Gln Glu Ala Glu
226 65 70 75 80
229 Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys
230 85 90 95
233 Ser Glu Thr Ser Gly Pro Gln Ile Lys Glu Leu Thr Asp Glu Glu Ala
234 100 105 110
237 Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His

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RAW SEQUENCE LISTING

DATE: 01/15/2002

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TIME: 13:19:49

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\I623568.raw

```

238          115          120          125
241 Glu Ala Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp
242          130          135          140
245 Thr Glu Glu Asp Glu Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu Lys
246 145          150          155          160
249 Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr Gln
250          165          170          175
253 Thr Leu Ser Glu Leu Asp Leu Ala Val Pro Phe Cys Val Asn Phe Arg
254          180          185          190
257 Leu Lys Gly Lys Asp Val Val Val Asp Ile Gln Arg Arg His Leu Arg
258          195          200          205
261 Val Gly Leu Lys Gly Gln Pro Ala Ile Ile Asp Gly Glu Leu Tyr Asn
262          210          215          220
265 Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys Val
266 225          230          235          240
269 Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Ser Arg
270          245          250          255
273 Leu Val Ser Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro Glu
274          260          265          270
277 Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Glu Ser Met Val Glu
278          275          280          285
281 Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr Ser
282          290          295          300
285 Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln His
286 305          310          315          320
289 Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn
290          325          330
293 <210> SEQ ID NO: 13
294 <211> LENGTH: 332
295 <212> TYPE: PRT
296 <213> ORGANISM: Rattus rattus
298 <400> SEQUENCE: 13
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301 1          5          10          15
304 Met Ala Gln Gln His Glu Gly Gly Val Gln Glu Leu Val Asn Thr Phe
305          20          25          30
308 Phe Ser Phe Leu Arg Arg Lys Thr Asp Phe Phe Ile Gly Gly Glu Glu
309          35          40          45
312 Gly Met Ala Glu Lys Leu Ile Thr Gln Thr Phe Asn His His Asn Gln
313          50          55          60
316 Leu Ala Gln Lys Ala Arg Arg Glu Lys Arg Ala Arg Gln Leu Thr Glu
317 65          70          75          80
320 Arg Arg Glu Lys Ala Glu Arg Ala Ala Arg Leu Ala Lys Glu Ala Lys
321          85          90          95
324 Ala Glu Thr Pro Gly Pro Gln Ile Lys Glu Leu Thr Asp Leu Lys Ala
325          100          105          110
328 Glu Arg Leu Gln Leu Glu Ile Asp Gln Lys Lys Asp Ala Glu Asn His
329          115          120          125
332 Glu Val Gln Leu Lys Asn Gly Ser Leu Asp Ser Pro Gly Lys Gln Asp

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RAW SEQUENCE LISTING

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PATENT APPLICATION: US/09/623,568

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Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\I623568.raw

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333      130      135      140
336 Ala Leu Leu Glu Glu Asp Glu Glu Asp Glu Lys Asp Lys Gly Lys Leu
337 145      150      155      160
340 Lys Pro Asn Leu Gly Asn Gly Ala Asp Leu Pro Asn Tyr Arg Trp Thr
341      165      170      175
344 Gln Thr Leu Ser Phe Leu Asp Leu Ala Val Pro Phe Arg Val Ser Phe
345      180      185      190
348 Arg Leu Lys Gly Lys Gln Val Val Val Asp Ile Gln Arg Arg His Leu
349      195      200      205
352 Arg Val Gly Leu Lys Gly Gln Ala Pro Val Ile Asp Gly Glu Leu Tyr
353      210      215      220
356 Asn Glu Val Lys Val Glu Glu Ser Ser Trp Leu Ile Glu Asp Gly Lys
357 225      230      235      240
360 Val Val Thr Val His Leu Glu Lys Ile Asn Lys Met Glu Trp Trp Asn
361      245      250      255
364 Arg Leu Val Thr Ser Asp Pro Glu Ile Asn Thr Lys Lys Ile Asn Pro
365      260      265      270
368 Glu Asn Ser Lys Leu Ser Asp Leu Asp Ser Glu Thr Arg Ser Met Val
369      275      280      285
372 Glu Lys Met Met Tyr Asp Gln Arg Gln Lys Ser Met Gly Leu Pro Thr
373      290      295      300
376 Ser Asp Glu Gln Lys Lys Gln Glu Ile Leu Lys Lys Phe Met Asp Gln
377 305      310      315      320
380 His Pro Glu Met Asp Phe Ser Lys Ala Lys Phe Asn
381      325      330
384 <210> SEQ ID NO: 14
385 <211> LENGTH: 202
386 <212> TYPE: PRT
387 <213> ORGANISM: Aspergillus nidulans
389 <400> SEQUENCE: 14
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392 1      5      10      15
395 Glu Glu Lys Gln Arg Lys Ala Ala Glu Ala Glu Gln Ala Thr Leu
396      20      25      30
399 Pro Tyr Lys Asn Thr Gln Thr Ile Arg Asp Val Asp Val Phe Thr Thr
400      35      40      45
403 Ile Pro Val Ser Ala Asn Leu Lys Gly Arg Asp Leu Asp Val Val Leu
404      50      55      60
407 Lys Lys Asp Ser Ile Lys Val Lys Val Lys Gly Glu Asn Gly Glu Val
408 65      70      75      80
411 Phe Ile Asp Gly Gln Phe Pro His Pro Ile Lys Pro Ser Glu Ser Ser
412      85      90      95
415 Trp Thr Leu Glu Thr Thr Ser Lys Pro Pro Phe Thr Gly Lys Glu Val
416      100      105      110
419 Ser Ile His Leu Asp Lys Val Asn Gln Met Glu Trp Trp Ala Met Val
420      115      120      125
423 Val Thr Thr Ala Pro Lys Ile Asp Val Ser Lys Ile Thr Phe Glu Asn
424      130      135      140
427 Ser Ser Leu Ser Asp Leu Asp Gly Glu Thr Arg Ala Met Val Glu Lys

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Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

MI

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/623,568

DATE: 01/15/2002

TIME: 13:19:50

Input Set : A:\ES.txt

Output Set: N:\CRF3\01152002\I623568.raw

.L:496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16